

Prospective types of exogenic gold deposits and their importance for metal provision in the XXI-st century

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Gold reserves from conventional placers have been exhausted. Therefore, most prospective exogenic gold deposit types should be identified to replenish gold resources. These could be subdivided into two groups: deposits with known exploration techniques and developed gold recovery technologies which could be involved in exploitation even in the beginning of the new millennium and those envisaged for longer term. The 1-st group includes gold-bearing weathering crust, anthropogenic, alluvial and beach placers with easy-to-treat material containing fine and ultra-fine gold (FG). Of them most important are auriferous weathering crusts bearing large gold resources. They may be composed of both high and low-grade clay ores with predominant fine and finely dispersed gold. The 2-nd group of exogenic deposits includes fine and ultra-fine gold placers of various morphogenetic types as well as buried placers of valleys, karst lows and depressions containing rather coarse gold. Heterogenous high-clay FG placers of erosion-structural-karst depressions and valley-grabens should be mentioned. Although being low-grade and difficult-to-treat, these placers are characterized by large gold reserves. Potentially high FG resources are also contained in sea coastal placers, big river deltas, proluvial-alluvial trails of tectonic zones, alluvium of big rivers and depressions confined to ore and placer districts. Besides, exogenic deposits contain extremely valuable information for prediction and search of lode gold deposits.